

KACHUGIN, Ye.G.

Some characteristics of the process of rebuilding the shores of  
reservoirs. Trudy Lab.gidrogeol.probl. 35:36-45 '61. (MIRA 15:1)  
(Shore protection)

KACHUGIN, Ye.G.

Theoretical and practical problems of the study of karst in the  
Dzerzhinsk region. Trudy Lab.gidrogeol.probl. 47:8-11 '62.

(Dzerzhinsk region (Gorkiy Province)-- Karst) (MIRA 15:6)

94310

S/188/63/000/001/011/014  
B164/B102

AUTHORS:

Kachukhashvili, G. S., Yastebtseva, T. N.

TITLE:

Investigations on static and transient characteristics of current switches

PERIODICAL:

Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, No. 1, 1963, 66 - 73

TEXT: A current switch circuit with surface alloyed semiconductor triodes is analyzed theoretically and the results are compared with those of experiments. Solving the diffusion equation for free carriers in the triode base taking account of boundary conditions and circuit equations gives analytical expressions for the volt-ampere characteristics, from which the minimum input pulse amplitude for switching and the input impedance can be obtained. Further the differential equation of the equivalent circuit is investigated taking account of the frequency properties of semiconductor triodes. This equation is solved under some simplifying assumptions. The dependence of the switching time on the triode and circuit parameters is investigated. The results of theoretical calculations are compared with experiments on a current switch circuit with low

VB

Card 1/2

Investigations on static and...

S/188/63/000/001/011/014  
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frequency П56 (P5B) triodes. Good agreement is obtained. There are 7 figures. VB

ASSOCIATION: Kafedra teorii kolebaniy (Department for Theory of Vibrations)

SUBMITTED: June 29, 1962

Card 2/2



TAMAYEV, I. V.; KACHUKHASHVILI, S. I.

Reaction between silver nitrate and alkali metal ferrocyanides.  
Zhur.neorg.khim. 7 no.7:1516-1520 JI '62. (MIRA 16'3)  
(Silver nitrate) (Alkali metal ferrocyanides)

~~KACHUR, Anastasiya Ivanovna, zvenevaya; KOSHOVYY, V.I.~~  
[Koshovyi, V.I.], red.; LIMANOVA, M.I. [Lymanova, M.I.],  
tekhn. red.

[Communist labor is the commandment of our team] Zapovid'  
nashoi lanky - kommunistychna pratsia. Kharkiv, Kharkivs'ke  
knyzhkove vyd-vo, 1963. 25 p. (MIRA 17:1)

1. Kolkhoz "Pershe travnya" Burinskogo rayona, Sumskoy oblasti  
(for Kachur).

MATVEYEV, M.A., doktor tekhn. nauk; MAZO, E.E., kand. tekhn. nauk;  
KACHUR, F.T., inzh.

Chemical stability of glass in orthophosphoric acid. Stek. i ker.  
20 no.10:8-10 0 '63. (MIRA 16:10)

1. Institut obshechey i neorganicheskoy khimii an BSSR.  
(Glass manufacture—Chemistry)  
(Phosphoric acid)

ACC NR: AP6035880

SOURCE CODE: UR/0413/66/000/020/0111/0111

INVENTOR: Matveyev, M. A.; Mazo, E. E.; Kachur, F. T.; Yakimovich, V. I.

ORG: none

TITLE: Glass for manufacturing glass fiber. Class 32, No. 187266

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 111

TOPIC TAGS: glass, glass fiber, reinforced glass fiber

ABSTRACT: This Author Certificate introduces a glass for manufacturing glass fiber containing  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{CaO}$ ,  $\text{MgO}$ ,  $\text{Na}_2\text{O}$ , and  $\text{F}$ . To increase the chemical stability of the glass fiber,  $\text{TiO}_2$ ,  $\text{K}_2\text{O}$ ,  $\text{Li}_2\text{O}$  are added to the original components as follows (wt %): 70.8--80  $\text{SiO}_2 + \text{TiO}_2$ ; 5.6--13.86  $\text{Al}_2\text{O}_3 + \text{CaO} + \text{MgO}$ ; 11.9--14.19  $\text{NaO} + \text{K}_2\text{O} + \text{Li}_2\text{O}$ ; about 2.5  $\text{MnO}$ ; about 2  $\text{F}$ . [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 08Apr65/

Card 1/1

UDC: 666.113.821'621'46'41'34'33'32'28'16 666.189.211

KAGAKU L.A.

Luminescence in the catalytic oxidation of vapors of organic compounds. A. N. Tsvetun and L. A. Kachuj. (State Opt. and Photophys. Lab.). *Dokl. Akad. Nauk S.S.S.R.* (1945, 241) (English summary). MgO powder, obtained through calcination of the carbonate, shows visible luminescence when heated to over 300° in a stream of C<sub>2</sub>H<sub>5</sub>OH (satd. vapor) mixed with air; the color is bluish white; the intensity grows with temp. up to red glow, from there on it becomes hardly observable, max. of intensity is at about 450°. The intensity further increases with the partial pressure of the alk. vapor (from 40 to 200 mm.), and with the partial pressure of the air, up to a certain limit; the luminescence disappears when the air is shut off or replaced by N<sub>2</sub>. Oxidation products of the alk. are collected at the outlet of the gas stream; the luminescence is obviously linked with oxidation and therefore termed "oxyluminescence". NaCl gel, granular or vitreous, also shows the phenomenon but at a temp. about 100° higher than in the case of MgO; SiO<sub>2</sub> aerogel shows practically no oxyluminescence; Al<sub>2</sub>O<sub>3</sub>, ZnO, and alumina hydrates none at all; some weak luminescence is found with Zn silicates contg. Mn. A more thorough study was made of MgO aerogel prepd. as catalyst in thin rods 2 mm. in diam. and 10 mm. long; it is heated in air to 550° to destroy org. matter; freedom from such impurities is checked by photoluminescence under ultraviolet of 3100-3900 Å. Heating in air to 950° does not impair the

oxyluminescence capacity, although it weakens the catalytic activity. Purified virgin samples of the MgO catalyst show no photoluminescence at 400-450° but they become photoluminescent after exposure to alk. vapor; that is, photoluminescence appears simultaneously with the oxyluminescence. Consequently, it appears probable that the carrier is the same for both types of luminescence. Furthermore, photoluminescence persists in the oxyluminescent MgO even at 450°, whereas it ordinarily disappears at much lower temp.; thus, a photoluminescent sample of K<sub>2</sub>(VO)<sub>4</sub>(SO<sub>4</sub>), enclosed in the same tube as the MgO, was quenched at 200°. The oxyluminescence spectrum was continuous, with a max. in the blue region. On protracted action of the alk.-air mixt., a gray-black film is deposited on the surface of the MgO; at 450° and with a high partial pressure of the alk., the film emits its own orange-red light. Similar oxyluminescence phenomena were observed with paraldehyde, AcOH, Me<sub>2</sub>CO, C<sub>6</sub>H<sub>6</sub>, and C<sub>2</sub>H<sub>5</sub>CHO. With paraldehyde, oxyluminescence begins at about 200° and is max. at about 300°; at 300-350°, luminescence also appears in the vol. of the tube, not only on the surface of the MgO. Glacial-AcOH vapor (12 mm.) shows a weaker luminescence than C<sub>2</sub>H<sub>5</sub>OH, and at somewhat higher temp. (475°), it shows an induction period of 30-60 sec.

ASB-518 METALLURGICAL LITERATURE CLASSIFICATION

With acetone (180 mm.) the black film is formed quickly. It is less abundant with benzal al. (10 mm.) than with  $C_{11}H_{11}O$ ; luminescence at 330-400° is white with a yellow-green tinge, the spectrum continuous (no lines of benzaldehyde); microscopic examn. reveals that yellow light is emitted by only a fraction of the surface of the  $MgO$ , the remainder of the surface showing the same shade as in oxyluminescence with  $C_{11}H_{11}O$ . A definite relation with catalytic activity was established by the observation that poisoning by  $CCl_4$  vapor at 200° irretrievably destroys the oxyluminescent ability of  $MgO$  even if the black film is removed by heating in air at 500°. Expts. with luminophors (phosphors) such as  $Zn$  silicates contg.  $Mn$  or synthetic rubies, in view of ascertaining whether the oxidation of the org. compds. also excites the proper luminescence of the solid bodies, were inconclusive. The carrier of both photo- and oxyluminescence is assumed to be a highly condensed oxidation product of al. (aldehyde pitch); luminescence in the visible region proves the presence of CO groups. Oxyluminescence seems to require contact of dehydrogenating and oxidizing catalysts; dehydrating catalysts ( $Al_2O_3$ ) are not active. The energy supplied to the oxyluminescent product must be at least 70 cal./mole.

N. Thon

KACHUR, L. A., TERENIN, A. N.

"Luminescence in the Catalytic Oxidation of Vapors of Organic Compounds,"  
Bull Acad. Sci. URSS, Classe Sci. Chim, 1945, p 275-287.

Chem. Abs., No. 6, Vol. 40, 20 Mar 1946.

State Optical Inst, Photochem Lab.

Luchevaya Bolezni' (Radiation Sickness), by L. A. Kachur, V. A. Petrov, M. N. Pobedinskiy, and L. F. Semenov, Moscow, Gosudarstvennoye Izdatel'stvo Meditsinskoy Literatury, 1956, 95 pp

This booklet is a handbook for secondary medical personnel. It provides basic information on the physical properties of ionizing radiations, dosimetry, the effect of large doses on the human organism, protective measures against the harmful effect of alpha-, beta-, and gamma-rays, and also on the management and treatment of individuals exposed to the action of ionizing radiation.

Chapter headings include: Dose and its intensity, Methods of measuring and measuring instruments, Instrument for individual inspection [pocket dosimeter], Dosimeters for inspection of shelters (DKZ), Investigation of contamination of air by radioactive substances, Investigation of contamination of water by radioactive substances, Protective measures against atomic weapons, Decontamination of contaminated surfaces and sanitary treatment of personnel, Acute radiation sickness, Therapy of acute radiation sickness.

A table (page 23) gives the maximum permissible levels for radioactivity under various conditions of action. The forms of radiation listed include X-, alpha-, beta-, and gamma-rays, slow neutrons, fast neutrons, alpha-active substances, beta-active substances, and beta- and alpha-active substances. The conditions of action include external irradiation, external action, administration of active substances, in water, in air, aerosols in air, contaminated hands, contaminated clothing, and contaminated work area. (U)

*Sim 'U 1451*

KACHUR, L.A.

 Radiological and chemical processes in the primary biological action of ionizing radiations. Vop.radiobiol. 2:5-19 '57.  
(MIRA 12:6)

1. Sotrudnik Tsentral'nogo nauchno-issledovatel'skogo rentgenoradiologicheskogo instituta Ministerstva zdavookhraneniya SSSR.  
(RADIATION--PHYSIOLOGICAL EFFECT)

KACHUR, L.A.; MATVEYEV, O.G.; FEDOROVA, I.V.

Determining the amount of deuterium in some biological media  
by means of the MS-2M mass spectrometer. Vop.radiobiol. 2:  
189-198 '57. (MIRA 12:6)

1. Sotrudniki Tsentral'nogo nauchno-issledovatel'skogo rentgeno-  
radiologicheskogo instituta Ministerstva zdorov'okhraneniya SSSR.  
(DEUTERIUM) (WATER IN THE BODY) (MASS SPECTROMETRY)

KACHUR, I.A.; MANOYLOV, S.Ye.; POBEDINSKIY, M.N.; PROTAS, L.R.; FEOKTISTOV, V.I.;  
SHEKHINA, G.A.

Relation of age to urinary excretion of radioactive potassium in  
humans. Med. rad. 4 no.3:42-43 Mr '59. (MIRA 12:7)

(POTASSIUM, radioactive,  
in urine, age factor (Rus))

(AGING, effects,  
on urinary radiopotassium (Rus))

KACHUR, L.A.

Thirty-seventh session of the city-wide conference on radiology and the physics of penetrating radiation at the Central Institute of Research in Medical Radiology of the Ministry of Public Health of the U.S.S.R., January 23, 1959. Med. rad. 4 no.5:96 My '59.  
(RADIOLOGY, MEDICAL) (MIRA 12:7)

KACHUR, L.A.

Conference of experts on radiochemical analysis in the public health  
system, Geneva, September 15-20, 1958. Med. rad. 4 no.10:93-94 0 '59.  
(MIRA 13:2)

(RADIOCHEMISTRY)

DOBYCHIN, D.P.; KACHUR, L.A.

Effect of the linear velocity of flow in cracking on the deposition of coke on aluminosilicate catalyst. *Zhur.prikl. khim.* 33 no.7:1514-1519 J1 '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.  
(Coke) (Catalysts) (Cracking process)

DOBYCHIN, D.P.; KACHUR, L.A.; TODES, O.M.

Modeling of the thermal regime for the process of regeneration of  
an aluminosilicate cracking catalyst at rest. Zhur. prikl. khim. 33  
no.8:1779-1783 Ag '60. (MIRA 13:9)  
(Aluminosilicates) (Cracking process)

KACHUK, L. A.

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PHASE I BOOK EXPLOITATION

80V/5435

Kiselev, P. N., Professor, G. A. Gusterin, and A. I. Strashinin, Eds.

Voprosy radiobiologii. t. III: Sbornik trudov, posvyashchenny 60-letiyu so dnya rozhdeniya Professora N. N. Pobedinskogo (Problems in Radiation Biology. v. 3: A Collection of Works Dedicated to the Sixtieth Birthday of Professor M[ikhail] N[ikolayevich] Pobedinskiy [Doctor of Medicine]) Leningrad. Tsentr. n-issl. in-t med. radiologii M-va zdavookhrananiya SSSR, 1960. 422 p. 1,500 copies printed.

Tech. Ed.: P. S. Peleshuk.

PURPOSE: This collection of articles is intended for radiobiologists.

COVERAGE: The book contains 49 articles dealing with pathogenesis, prophylaxis, and therapy of radiation diseases. Individual articles describe investigations of the biological effects of radiation carried out by workers of the Central Scientific Research Institute for Medical Radiology of the Ministry of Public Health, USSR. [Tsentral'nyy nauchno-issledovatel'skiy institut meditsinskoy radiologii Ministerstva zdavookhraneniya SSSR] during 1958-59. The following

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Problems in Radiation Biology (Cont.)

80V/5435

topics are covered: various aspects of primary effects of radiation; the course of some metabolic processes in animals subjected to ionizing radiation; reactions in irradiated organisms; morphologic changes in radiation disease; and reparation and regeneration of tissues injured by irradiation. Some articles give attention to the effectiveness of experimental medical treatments. No personalities are mentioned. References accompany almost all of the articles.

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Problems in Radiation Biology (Cont.) 807/5435

Poplavskiy, K. K. Phasic Changes in the Ability of Irradiated Animals to React to Anesthetization 78

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Alekseyeva, G. N. Reaction of an Irradiated Organism to the Introduction of Gangliolytic Preparations [gangliolitiki] 93

Protas, L. R., and A. A. Danilin. The Mechanism of Functional Disturbances in the Alimentary Canal During Acute and Subacute Forms of Experimental Radiation Sickness 97

Aleksandrov, S. N. Some Methods of Approach to the Study of Early Stages of Radiation Sequelae 104

Manoylov, B. Ye. Respiration of Tissue and Sensitivity to Radiation 111

Kachur, L. A., P. N. Kiselev, and A. N. Shutko. Effect of Ionizing Radiation on the Water-Exchange Process Between the Blood and the Extravascular Liquids in the Organism 138

Card 4/10

KANTIN, A.V.; KACHUR, L.A.; LAPCHENKOV, V.I.; CHOCHIA, K.N.

Preoperative irradiation in cancer of the breast by intra-tissular administration of colloidal radioactive gold.  
Med.rad. no.1:24-32'63. (MIRA 16:10)

1. Iz radioonkologicheskogo i radiologicheskogo otdelov  
TSentral'nogo nauchno-issledovatel'skogo instituta medi-  
tsinskoy radiologii Ministerstva zdravookhraneniya SSSR.  
(GOLD ISOTOPES—THERAPEUTIC USE )  
(BREAST—CANCER)

KACHUR, L.A.; POSPELOVA, I.I.

Dosage estimation in intratissue introduction of radioactive colloidal gold. Vestn. rent. i rad. 38 no.3:59-60 My-Je '63. (MIRA 17:7)

1. Iz radiologicheskogo otdeleniya Tsentral'nogo nauchno-issledovatel'nogo instituta meditsinskoy radiologii (direktor Ye.I. Vorob'yev).

NAZAROVA, T.N., kand.tekhn.nauk; BABAYAN, V.V., inzh.; KACHUR, L.D., inzh.;  
CHEUSOVA, Ye.Ya., inzh.

Increasing the contact strength of cog wheels by high-temperature  
nitriding. Trakt. i sel'hoz mash. no.11:38-40 N '64.

(MIRA 18:1)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny  
institut (for Babayan). 2. Lipetskiy traktorny zavod (for  
Cheusova).

NAZAROVA, T.N., kand. tekhn. nauk; BABAYAN, V.V., inzh.; TORPANOVA,  
G.A., kand. tekhn. nauk; KACHUR, L.D., inzh.

New 25KhNTTs case-hardened steel for the pistons of tractor  
transmissions. Trakt. i sel'khoz mash. no.4:42-43 Ap '65.

(MIRA 18:5)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny  
institut (for Nazarova, Babayan).
2. Tsentral'nyy nauchno-issledo-  
vatel'skiy institut chernoy metallurgii imeni Bardina (for Torpanova).
3. Lipetskiy traktorny zavod (for Kachur).

KAGHUR, M.B.

Clinical aspects of epidemic hepatitis in a hot climate. Klin.med.  
34 no.4:65-68 Ap '56. (MLRA 10:1)

(HEPATITIS, INFECTIOUS, physiology,  
in hot climate (Rus))

(CLIMATE,  
clin. aspects of infect. hepatitis in hot climate (Rus))

"Certain Characteristics of the Clinical Course of Q Fever,"  
by M. B. Kachur, Meditsinskiy Zhurnal Uzbekistana, No 3, Mar  
57, pp 23-24

"In April and June 1954, we diagnosed Q fever in eight persons and treated these patients. They were all male, from 21-38 years old. The disease was observed in two groups with identical numbers of patients. Before illness, they were dispersed in different areas of the city in well-constructed brick buildings, and there was no contact between them. The two groups went into a field on horseback in March 1954 and stopped for the night in a cow pasture. Milk products were not used; there was no contact with animals other than the horses.

"In investigation of the patients, the complement fixation reaction was positive in seven in a dilution of 1:64, and in one in a dilution of 1:16. In the latter case, the low titer can be explained by the fact that the blood was examined 2.5 months after it was taken.

"The disease course varied in the different groups.

"The onset was unexpected and occurred in April in the first group. Chills, headache, general weakness, high temperature (39.5 - 40°), pain in the eyeballs, back, and leg muscles, and anorexia, appeared in the midst of complete well-being. Acute hyperemia of the face and relative bradycardia (pulse of 84-72 beats per minute, temperature 39-40°) were observed. Deepening of heard sounds was noted: arterial pressure was somewhat lower (100-95/60-55 mm). Dry rattles were detected in the lungs of the majority of patients. The tongue was dry and coated with a gray material; the abdomen was soft and painless. The liver was palpable and the spleen was enlarged, as a rule, in half the patients. A tendency to constipation was observed in all the patients; in three, there was rumbling and pain in the cecal area, which lasted 2-3 days. A rash which lasted for 2 days appeared in one patient on the third day. In another, a profuse outbreak of a nettle rash type and herpes on the lips appeared on the sixth day. Roentgenoscopy of the chest was done on all patients during the period of increased temperature, and changes in the lungs were not noticed.

"The patients experienced occasional shivering during the day and in the evening. On the 6th-7th day the crisis occurred and the temperature fell to normal at night with copious perspiration after which the general condition improved rapidly and an interest in surroundings returned. The patients were discharged in good condition on the 10th-12th day.

"The general condition of the patients was completely satisfactory during the entire febrile period despite high temperatures. Leukopenia (3,500-5,000) and an erythrocyte sedimentation rate in the range of 14-20 mm per hour were noted in the blood. Traces of albumin were found in the urine of 3 patients."

A complete case history of one patient is presented.

"The incubation period was approximately 90 days in patients of the second group, who became ill in June. The clinical course was characterized by a gradual onset. Violent chills alternating with hot flashes and profuse perspiration were observed once or twice daily for a period of 6-8 days. The temperature dropped to normal after 2 or 3 hours, and rose to 39-40° again after 5 or 6 hours. Such a condition persisted for a period of 6-8 days. The results of objective investigation, analyses, and data from chest roentgenoscopy did not differ from those of the first group.

"Therapy of all the patients was conducted symptomatically: sulfamide drugs, antibiotics (penicillin, streptomycin, and one patient, levomycetin). No positive effect was obtained from the administration of antibiotics." (U)

*Sum 14 1951*

KACHUR, M.B.

Bacterial carriers in dysentery. Zhur, mikrobiol. epid. i immun. 28  
no. 5:67-68 May '57. (MLBA 10:7)  
(DYSENTERY, BACILLARY, epidemiol.  
role of carriers)

KACHUR, M.B.

KACHUR, M.B. (Fergana)

Some peculiarities in the clinical course of Q fever. Klin.med. 35  
[i.e.34] no.1 Supplement:40 Ja '57. (MIRA 11:2)  
(Q FEVER)

KACHUR, M.B.; KOPF, S.S. (Fergana)

Some clinical features of influenza caused by viruses A<sub>1</sub> and A<sub>2</sub>.  
Klin.med. 37 no.1:140 Ja '59. (MIRA 12:3)  
(INFLUENZA, manifest.  
A<sub>1</sub> & A<sub>2</sub>, clin. features (Rus))

KACHUR, M.B.; KIRIYENKO, N.M.

Healthy persons as carriers of *Shigella dysenteriae*. Zhur. mikro-  
biol.; epid. i immun. 41 no.6:132 Je '64.

(MIRA 18:1)

*KACHUR, M. K.*  
AUTHOR: Kachur, M. K.

5-6-36/42

TITLE: Afforested Swamps of Central Meshchera (Oblesennyye bolota tsentral'noy Meshchery)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskoy, 1957, # 6, pp 148-149 (USSR)

ABSTRACT: In 1956, the author explored the swamps of central Meshchera in the Ryazan' oblast'. Some swamps have extremely correct, round shape and an even saucer-like relief at the bottom. These swamps are afforested with pine trees and birches. Other vegetation at these swamps are brushwood, cotton grass and sphagnum of various species.

AVAILABLE: Library of Congress

Card 1/1

YEREMENKO, V.S.; KHALIF, A.L.; KACHUR, O.Yu.

Foreign technology, Gas. prom. 8 no.6:40-42 '63. (MIRA 17:8)

FISHMAN, Konstantin Yevgen'yevich; KHRUZIN, Nikolay Andreyevich;  
KACHUR, O.Yu., red.; KOGAN, V.V., tekhn.red.

[Manufacture of capron silk] Proizvodstvo kapronovogo shelka.  
Moskva, Goskhimizdat, 1961. 199 p. (MIRA 15:5)  
(Nylon)

BARK, S.Ye., red.; VIDGORCHIK, D.Ya., red.; KACHUR, O.Yu., red.;  
RAVICH, M.B., red.; TSIKERMAN, L.Ya., red.; PANKRATOVA,  
O.M., ved. red.

[Use of gas in industry] Ispol'zovanie gaza v promyshlen-  
nosti. Moskva, 1962. 109 p. (MIRA 16:10)

L. Institut tekhnicheskoy informatsii i ekonomicheskikh  
issledovaniy po neftyanoy i gazovoy promyshlennosti.  
(Gas as fuel)

VESHITSKIY, V.A., red.; KACHUR, O.Yu., ved. red.; ROZOVA, S.T.,  
tekhn. red.

[Isothermal storage of liquefied gases] Izotermicheskoe  
khranenie szhishennykh gazov. Moskva, 1962. 65 p.  
(MIRA 16:10)

1. Institut tekhnicheskoy informatsii i ekonomicheskikh  
issledovaniy po-neftyanoy i gazovoy promyshlennosti.  
(Liquefied petroleum gas--Storage)

KACHUR, S.I., inzh.

Techniques for the manufacture of prestressed spun contact  
network poles. Transp. stroi. 13 no.5:59-62 My '63.  
(MIRA 16:7)

(Electric lines--Poles and towers)  
(Railroads--Electrification)

PASHKOVSKIY, V.G.; KACHUR, S.I.

Supports with unlooped reinforcements. Transp. stroi. 13 no.6:  
12-13 Je '63. (MIRA 16:9)

1. Starshiye inzhenery Vsesoyuznogo nauchno-issledovatel'skogo  
instituta transportnogo stroitel'stva.  
(Concrete reinforcement)

KACHUR, S. I., inzh.

Technology of producing section I-beam supports for over-  
head contact systems by the vibratory method. Transpstroi  
13 no. 11:10-13 N '63. (MIRA 17:5)

KARMINSKIY, A.B.; BOGIN, N.M., kand. tekhn. nauk; KACHUR, S.I., inzh.;  
DUBININ, F.A., inzh.; VAKS, A.B., inzh.; DYNER, I.I.; ROSSIUS, L.V.

Reviews and bibliography. Transp. stroi. 15 no.4; 58-61 Ap '65.  
(MIRA 18:6)

1. Glavnyy spetsialist po zemlyanomu polotnu Dneprogiprotransa  
(for Karminskiy). 2. Glavnyy spetsialist po sanitarnoy tekhnike  
Gosudarstvennogo proizvodstvennogo komiteta po transportnomu  
stroitel'stvu SSSR (for Dyner). 3. Glavnyy energetik Volgobalt-  
stroya (for Rossius).

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18.17-00

S/136/62/000/011/001/002  
E021/E435

AUTHORS: Layner, D.I., Solov'yev, V.Ya.,  
Krupnikova-Perlina, Ye.I., Kachur, Ye.V.

TITLE: Study of the deformation texture of rolled niobium

PERIODICAL: Tsvetnyye metally, no.11, 1962, 80-85

TEXT: The main orientations in rolled niobium and the influence of the degree of deformation and the effect of some impurities on the texture of the deformation were studied. Niobium prepared by both the carbon-thermal and the sodium-thermal methods was used. Some of the niobium was vacuum-sintered at 2300°C in the form of bars 20 x 20 x 600 mm, some was remelted in a vacuum-arc furnace to 70 mm diameter bars and some was remelted in an electron-beam furnace to 80 mm diameter bars. Some of the bars were forged and then cold rolled with intermediate annealing; the total deformation was 83%. The deformation texture was then compared for the different starting materials which contained different amounts of impurities (O<sub>2</sub> - 0.152 and 0.083, N<sub>2</sub> - 0.04 and 0.1, C - 0.04 and 0.07, Si - 0.012 and 0.003 for sodium- and carbon-thermal methods respectively). The influence of the melting  
Card 1/2

Study of the deformation ...

S/136/62/000/011/001/002  
E021/E435

procedure on the texture of rolled material was studied on niobium prepared by the sodium-thermal process after 95% deformation. The texture was determined from pole-figures constructed for (110) and (200) faces. Results: The technological processes involved in the preparation of niobium had no effect on the formation of the deformation texture. An increase in degree of deformation during the final rolling was accompanied by an increase in the degree of perfection of the texture of rolling. Within the investigated limits, the content of the impurities oxygen, nitrogen and carbon had no influence on the type or the degree of perfection of the texture. The main axes of the deformation texture of rolled niobium were (112) [110] + (100) [110]. There are 6 figures and 3 tables.

Card 2/2

ACC NR: AP7005141

SOURCE CODE: UR/0126/66/022/004/0640/0640

AUTHOR: Pakhomov, V. Ya.; Kunakov, Ya. N.; Kachur, Ye. V.; Layner, D. I.

ORG: Scientific Research and Design and Planning Institute of the Rare Metals Industry (Nauchno-issled. i proektnyy institut redkometallicheskoy promyshlennosti)

TITLE: The effect of microinhomogeneity on the critical points of superconducting alloys

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 4, 1966, 640

TOPIC TAGS: critical point, superconducting alloy, lattice defect, grain structure, homogenization heat treatment, cast alloy

ABSTRACT: The effect of a homogenization anneal on the critical current density of Nb-46% Ti and alloy-2 was studied. The purpose of this heat treatment was to eliminate intercrystalline liquation which exists in the as-cast alloys. It is known that the Lorentz force can cause a creep of magnetic current that may result in the loss of superconductivity. Different types of metallic defects (inhomogeneities, dislocations, internal stresses, etc.) may act as stabilizers against the creep. For the experiments, 40-gram ingots were melted in a radiant arc furnace with tungsten electrodes in a purified helium atmosphere and homogenized in a vacuum furnace at 1500°C. The homogenized ingots were cold reduced into 0.25 mm diameter samples. All samples

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UDC: 537.312.62

ACC NR: AP7005141

had similar cold reductions. Critical current densities were measured in a transverse magnetic field of 16 kilooersted at 4.2°K. The critical current density was given as a function of ingot homogenization time which ranged from 1 to 5 hours. In both alloys, the critical current density was lowered by homogenization. The critical current density for Nb-46% Ti decreased linearly from about  $1.8 \cdot 10^4$  a/cm<sup>2</sup> in the as-cast condition to about  $10^4$  a/cm<sup>2</sup> after 5 hours of ingot homogenization. Alloy-2 dropped sharply from  $2 \cdot 10^4$  a/cm<sup>2</sup> to about  $10^4$  a/cm<sup>2</sup> after 1 hour of ingot homogenization, and remained constant thereafter. All of the samples had a similar dislocation density of  $10^{11}$ - $10^{12}$  cm<sup>-2</sup>, characteristic of severely deformed metals. The microstructure of as-cast ingots showed intercrystalline liquation, which decreased as a function of homogenization time. After 5 hours at 1500°C, almost all of the liquation was absent in both alloys. Analogous results were obtained in the alloys Nb-75% Zr and 65 BNT in which the critical current density after homogenization changed from  $1.3 \cdot 10^4$  and  $2 \cdot 10^4$  to  $7.8 \cdot 10^3$  and  $1.2 \cdot 10^3$ , respectively. Orig. art. has: 1 figure.

SUB CODE: 20,11/      SUBM DATE: 02Feb66/      OTH REF: 001

Card 2/2

GRITSENKO, A., gornyy master; KACHURA, A.; LUKIN, B.

Is there a need for special gas inspectors in mines? Sov.shakht.  
10 no.5:17 My '61. (MIRA 14:9)

1. Shakhta no.2 "Kontarnaya" tresta Shakhterskantratsit."
  2. Rabochiy shakhty no.8 kombinata Stalinugol'.
  3. Desyatnik ventil-yatsii shakhty "Polysayevskaya-1" kombinata Kuzbassugol'.
- (Mine gases)

KACHURA, A., rabochiy

When no attention is given to people's welfare. Sov.shakht.  
10 no.9:25 S '61. (MIRA 14:8)

1. Chlen shakhtnogo komiteta shakhty No.8 tresta Budennovugol',  
g. Stalino.  
(Coal miners)

КАЧУРА, А.К.

КАЧУРА, А.К., инж.

Defects of loading and unloading devices on coal mine skip hoists  
from the standpoint of their automatization. Sbor. DonUGI no.15:  
27-32 '56. (MIRA 10:11)

1. Laboratoriya shakhtnogo pod'yema.  
(Mine hoisting) (Loading and unloading) (Automatic control)

KACHURA, B.S.

Criticism of certain "theories" about the stimulating effect of  
inflation on industrial production. *Wisnyk AN URSS* 28 no.6:13-22  
Je '57. (MLBA 10:8)

(Inflation (Finance))

KACHURA, B.S., kand. ekon. nauk

Progressive scientists of France, Germany, and the United States  
on the results of the capitalistic rationalisation of production.  
Viznyk AN URSR 29 no. 6:71-76 Je '58. (MIRA 11:7)  
(Automation)  
(Labor productivity)

KACHURA, B., kand.ekon.nauk

Valuable book on the economic history of foreign countries  
("Economic history of foreign countries" by V.T.Chuntulov.  
Reviewed by B.Kachura). Dop.AN URSS no.5:707-710 '60.

(MIRA 13:7)

(Economic history)  
(Chuntulov, V.T.)

SHAPIRO, B.E.; DOLOTOV, V.V.; KACHURA, B.S.; MITSMAKHER, I.D.;  
BERGER, K.V., red.; LUUSHCHENKO, N.L., tekhn. red.

[Organizing and planning the work of enterprises building  
apartment houses] Organizatsia i planirovanie raboty do-  
mostroitel'nykh kombinatov. [By] B.E.Shapiro i dr. Kiev,  
Gosstroizdat USSR, 1963. 91 p. (MIRA 17:2)

MEYDMAN, M.; PARFENENKO, A.; KACHURA, K.

Simplify accounting for and reports on financing and issuing long-term credit. Den. i kred. 18 no.9:69-73 S '60. (MIRA 13:8)

1. Inspektor Khercasskoy kontory Gosbanka (for Meydman).
  2. Starshiy inspektor Sumskoy kontory Gosbanka (for Parfenenko).
  3. Starshiy inspektor gorupravleniya Cherkasskoy kontory Gosbanka (for Kachura).
- (Banks and banking--Accounting)

ARTEM'YEV, V.I.; KACHURA, F.S.

Mapping of rural settlements on the basis of aerial photographs.  
Geod. i kart. no.5:56-58 My '62. (MIRA 15:7)  
(Aerial photogrammetry)

-----, -----, -----.

"Disc friction clutches in excavators"

Ogneupory, No. 5, 1948

Исследования, в. 4, 1949.

"Use of a refractory excavator for mechanized  
removal of refractory clays"

Ogneupory, No. 4, 1949

BCS

Winning Preparation  
J. Shagun 3/1950

366. Mechanization of trench winning with rotary excavators.—N. I. KACHURA (Glasnost, 14, 172, 1949). Trenches were previously dug by hand—in open pits until an excavator producing up to 60 tons/hr. and operated by one man was introduced; each excavator freed about 60 workers. (3 figs.)



KACHURA, H.I.

Improving rotor excavators for mining fire clays. Ogneupory 20 no.7:  
302-305 '55. (MLRA 9:1)

1. Chasov-Yarskoye rudoupravleniye.  
(Excavating machinery)

KTITOROV, Pavel Mikhaylovich,; ZAYCHENKO, Grigoriy Yevlampiyevich,;  
KACHURA, Nikolay Ivanovich,; KRYUCHKOV, Aleksandr Stepanovich,;  
CHUMACHENKO, G., red.; BESP'YATOV, R., tekhn. red.

[Over-all mechanization of mining operations in Chasov Yar open  
pit mines] Kompleksna mekhanizatsiia hirnychych robit na  
Chasiv'iars'kykh kar'ierakh. Kyiv, Derzh. vyd-vo tekhn. lit-ry  
URSR, 1958. 132 p. (MIRA 11:11)

(Chasov Yar--Strip mining)  
(Mining machinery)

KACHURA, N.I., gornyy inzh.; BATLUKOV, V.N., gornyy inzh.

Open middlings pipe for the crushing and ore dressing plant.  
Gor. zhur. no.12:60 D '62. (MIRA 15:11)

1. Dokuchayevskiy flyuso-dolomitnyy kombinat.  
(Dokuchaevsk region—Hydraulic conveying)  
(Ore dressing)

KACHURA, N.I.; KHERSONSKIY, N.N.; KRASNOPOL'SKIY, A.A.; ALEKSEYEV, Ye.B.;  
CHEBANOV, Ye.A.

Drilling rig for drilling holes with a roller bit. Gor. zhur. no.8:  
75 Ag '63. (MIRA 16:9)  
(Boring machinery)

SUKHANOV, A.F., prof.; KUTUZOV, B.N., kand. tekhn. nauk; TOKAR', M.G.,  
inzh.; KANTOVICH, L.I., inzh.; KRASNOPOL'SKIY, A.A.;  
KACHURA, N.I.

Study of new methods of drilling holes in open-pit mines  
of the Dokuchayevsk flux-dolomite combine. Gor. zhur. no.7:  
24-29 JI '63. (MIRA 16:8)

1. Moskovskiy institut radioelektroniki i gornoy elektro-  
mekhaniki (for Sukhanov, Kutuzov, Tokar', Kantovich).
2. Glavnyy inzh. Dokuchayevskogo flyuso-dolomitnogo kom-  
binata (for Krasnopol'skiy).
3. Glavnyy mekhanik Doku-  
chayevskogo flyuso-dolomitnogo kombinata (for Kachura).

KUTUZOV, B.N., kand. tekhn. nauk; KRASNOPOL'SKIY, A.A., inzh.; KACHURA,  
N.I., inzh.; MIKHEYEV, I.G., inzh.

Dust trapping by compressed air removal of drilling fines from  
boreholes. Bezop. truda v prom. 8 no.11:46-47 N '64.

(MIRA 18:2)

SOLOV'YEV, K.N.; SHKIRMAN, S.F.; KACHURA, T.F.

Spectral-luminescent properties of benzopurpurins. Izv. AN SSSR.  
Ser. fiz. 27 no.6:767-771 Je '63. (MIRA 16:7)

1. Institut fiziki AN Belorusskoy SSR.  
(Benzopurpurin--Spectra)



ACCESSION NR: AP5012763

hypotheses concerning the nature of the multiplets in the ...

RE: ... STAFF ...

KACHURETS, G.D., slesar'

Stand for running-in pump and injector units of IAZ-204 engines.  
Transp. stroi. 14 no.10:49-50 0 '64. (MIRA 18:3)

1. Avtobaza tresta Chernomorgidrostroy.

KACHURETS, V.I.

Duration and intensity of antidiphtherial immunity in children vaccinated with various vaccine types. Nauch. trudy Kaz. gos. med. inst. 14:451-452 '64. (MIRA 18:9)

1. Kafedra detskikh infektsiy (zav. - prof. N.P.Kudryavtseva) Kazanskogo meditsinskogo instituta.

KUDRYAVTSEVA, N.P.; KACHURETS, V.I.; NASYBULLINA, S.Kh.

Use of strophanthin in the compound treatment of cardiovascular disorders in toxic diphtheria. Kaz.med.zhur. no.3:42-43 My-Je '62. (MIRA 15:9)

1. Kafedra detskikh infektsiy (zav. - prof. N.P.Kudryavtseva) i difteriynoye otdeleniye 1-y infektsionnoy klinicheskoy bol'nitsy imeni prof. A.F.Agafonova (glavnyy vrach - D.P.Petrov). Kazanskogo meditsinskogo instituta.

(STROPHANTHIN) (DIPHThERIA)  
(CARDIOVASCULAR SYSTEM--DISEASES)

Mbr., Chair Pathophysiology, Kazan' Inst. for Advanced  
Training of Physicians Im. Lenin, -1948-

Mbr., Chair Infectious Diseases of Children, Kazan'  
Medical Inst., -1948-

"Hemorrhagic Reaction and Ascorbic Acid," Arkhiv  
Patol., 11, No. 4, 1949. p. 27-33

KACHURETS, V.I.; KUDRYAVTSEVA, N.P.

Incidence of diphtheria in Kazan and the fundamental stages of  
its eradication. Nauch. trudy Kaz. gos. med. inst. 14:35-36 '64.

(MIRA 18:9)

1. Kafedra detskikh infektsiy (zav. - prof. N.P.Kudryavtseva)  
Kazanskogo meditsinskogo instituta.

KEMMERIKH, A.O., kand.geograf.nauk; MALIK, L.K.; KACHURIN, B.S.

Spring floods. Priroda 50 no.5:124-125 My '61. (MIRA 14:5)

1. Institut geografii AN SSSR (Moskva).  
(Spring) (Floods)

KACHURIN, D.S.

AUTHOR: KATSCHURIN, D.S., deputy manager of quality control of the Kuznetsk metallurgical combine. PA - 2767

TITLE: Important Reserves for the Increase of the Output of Finished Goods. (Waschnyj rezerv povyschenia vypuska produkcii, Russian)

PERIODICAL: Metallurg, 1957, Vol 2, Nr 4, pp 26 - 28 (U.S.S.R.)  
Received: 5 / 1957 Reviewed: 6 / 1957

ABSTRACT: In the course of 25 years of production in the combine, the rate of production of pig iron and steel increased also as the result of improved quality and the reduction of the quantity of scrap iron. This was achieved by the improvement of production methods by automation and by improving the methods of control as well as by a better technical training of the staff. The most important factor with respect to quality is the stability of production methods. By means of quality control violations of the production method are not only detected but also analyzed as to their causes and removed. Moreover, scientific research is carried out in collaboration with the Central Laboratory in order to attain optimum production processes. By various means it was possible to utilize railway rays which formerly were considered to be mer scrap iron and thus to reduce scrap iron even further. The demands made on quality, which increased during recent years, led to the introduction of additional and more severe examination methods which resulted in a reduction of scrap material on the part of the consumer.

Card 1/2

PA - 2767

Important Reserves for the Increase of the Output of Finished Goods.

Such defects as a deterioration of the quality of the surface of semifinished products must, however, not be suppressed. Research on this question is still being carried out. It was established, however, that the influence exercised by various factors connected with processing methods of steel production and of milling on the quality of the metal surface were not studied with sufficient thoroughness. The main problem of foundry and milling practice consists in the amelioration of the surface quality of the metal. This represents the main reserve making a reduction of scrap material possible.  
(3 tables)

ASSOCIATION: Kuznetsk Metallurgical Combine.

PRESENTED By:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 2/2

CHELYSHEV, N.A.; KOBYZEV, V.K.; BOGDANOVA, N.G.; DUBROVIN, A.K.; KACHURIN, D.S.

Investigating metal deformation on a blooming mill with the help  
of radioactive isotopes. *Izv.vys.uceb.zav.*; *chern. met.* 8 no.4:  
96-101 '65. (MIRA 18:4)

1. Sibirskiy metallurgicheskiy institut i Kuznetskiy metallurgicheskiy kombinat.

CHELYSHEV, N.A.; KOBYZEV, V.K.; BOGDANOVA, N.G.; DUBHOVIN, A.K.; KACHURIN, D.S.

Radioactive isotope study of metal deformation in blooming mill  
rolling. Izv. vys. ucheb. zav.; Chern. met. 7 no.12:65-72 '64  
(MIRA 18:1)

1. Sibirskiy metallurgicheskiy institut i Kuznetskiy metallurgi-  
cheskiy kombinat.

KACHURIN, D.S., inzh.; KOBYZEV, V.K., inzh.; DUBROVIN, A.K., inzh.;  
USOL'TSEV, B.N., inzh.

Effect of fluting the roll surfaces on the quality of the rolled  
metal. Stal' 25 no.12:1103-1105 D '65. (MIRA 18:12)

1. Kuznetskiy metallurgicheskiy kombinat.

KACHURIN, I.

According to the new manual. Gradsh.av. 17 no.2:9 F '60.  
(MIRA 13:6)

1. Kachal'nik politotdela Turkmenskogo territorial'nogo upravleniya  
Grashdanskogo vovdushnogo flota.  
(Turkmenistan--Aeronautics, Commercial)  
(Communist education)

~~KACHURIN, I. K.~~

Theory of stereoscopic projections and their applications.  
Trudy LIKI no.4:128-140 '56. (MLRA 10:5)

1. Kafedra nachertatel'noy geometrii.  
(Optics, Geometrical)

ANDEREG, Georgiy Ferdinandovich; BARBANEL', Solomon Rafailovich;  
KACHURIN, Il'ya Konstantinovich; PANFILOV, N.D., red.;  
TOMANOVSKIY, R.F., tekhn. red.

[Equipment of wide-screen motion-picture theaters] Tekhnika  
shirokoekrannykh kinoteatrov. Moskva, Gos.izd-vo "Iskusstvo,"  
1961. 163 p. (MIRA 15:1)  
(Motion-picture theaters—Equipment and supplies)  
(Motion-picture projectors)

ANDEREG, Georgiy Ferdinandovich; BARBANEL', Solomon Rafailovich;  
KACHURIN, I.K., red.; BORSHCHEVSKAYA, S.I., red.;  
LEVONEVSKAYA, L.G., tekhn. red.

[Handbook on the equipment of motion-picture theaters]  
Spravochnaia kniga po tekhnike kinoustanovok. Leningrad,  
Lenizdat, 1964. 479 p. (MIRA 17:2)

PODEKUYKO, Sergey Il'ich; KACHURIN, Il'ya Konstantinovich;  
BOGATOVA, V.S., red.

[Repair of the electrical equipment and electroacoustical  
apparatus of motion-picture projection systems] Remont elektro-  
oborudovaniia i elektroakusticheskoi apparatury kinoustanovok.  
Moskva, Iskusstvo, 1965. 265 p. (MIRA 18:12)

KACHURIN, K. (Leningrad)

Section bridge circuit for a rectifier. Radio no.2:44  
P '60. (MIRA 13:5)

(Bridge circuits)  
(Electric current rectifiers)

KACHURIN, K., insb.

Fixture locating devices. Radio no.1:34-35 Ja '64.  
(MIRA 17:8)

KACHURIN, K., inzh.

Transistor amplifiers with direct coupling. Radio no.3:28-29  
Mr '65. (MIRA 18:6)

KACHURIN, L.G.

Study of the windy layer of the atmosphere with the aid of thermo-anemometers  
Sbor.trud.Len.Gidrometeorol.inst. no.2:121-126 '50.

(MIRA 6:8)  
(Anemometer)

KACHURIN, L. G.

USSR/Geophysics - Aerosols

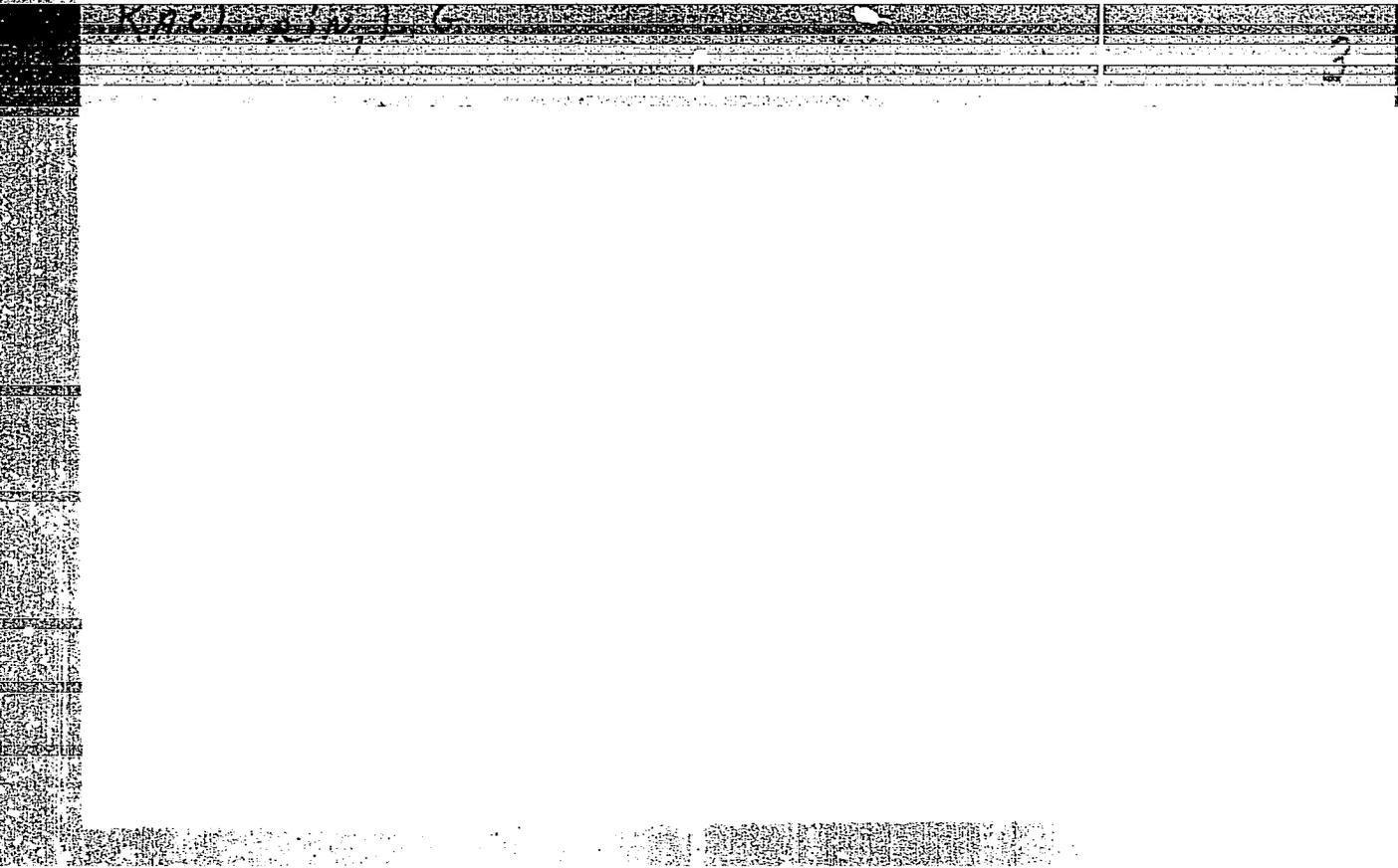
Mar/Apr 51

"Freezing of Monodispersed Watery Aerosols," L. G. Kachurin, Leningrad Hydrometeorol Inst

"Iz Ak Nauk, Ser Geog i Geofiz" No 2, pp 43-49

Detd superficial energy on boundary between ice and supercooled water experimentally. Presents method for computing freezing point of supercooled watery aerosols during relatively slow processes in comparison with freezing of individual drops after equilibrium ice nuclei have been formed within the drops. Sub by Acad O. Yu. Shmidt.

1802/5



KACHURIN, L. G.

"Supersaturation of Vapor and Condensation Growth of Drops in Aqueous Clouds,"  
Meteorol. i. gidrologiya, No 8, 1953, pp 23-26

Analytic solution to the problem on the supersaturation of vapor and rate of  
condensation growth of drops in aqueous clouds for the case of steady-state supersatu-  
ration. (RZhGeol, No 5, 1954)

SO: Sum No. 568, 6 Jul 55

✓ The probability of ice-nuclei formation in supercooled water. L. G. Kachurin (Inst. Leningrad Hydrometeorol.). Doklady Akad. Nauk S.S.S.R. 99, 307-10 (1953). The probability of crystal-nuclei formation in supercooled liquids was calcd. from the known formula, involving a const.  $C$  characteristic of the substance, the activation energy  $\mu$ , and the surface energy  $\sigma$  at the interface. A method is described

for calcg. these factors within a narrow temp. range from the exptl. results on a large no. of f.ps. of water drops. The statistically treated results for cond. water and with atm. condensation water justified the assumption that most of the insol. particles in water are inactive in its crystaln.

W. M. Sternberg

✓  
Small

"APPROVED FOR RELEASE: 07/19/2001

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APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R000519820006-0"

✓ 7.2-91

531.503.71

Kachurin, L. G. *O kondensatsionnom psikhrometre.* [The condensation psychrometer.] *Meteorologiya i Gidrologiya*, No. 2:41-42, March/April, 1955. 6 refs., 9 eqs. DLC--The author analyzes the physical and chemical basis of the condensation psychrometer of B. V. Karuzhin in which the thermometer is wetted with a saturated solution of NaOH, NaCl and CaCl<sub>2</sub>. The relationship between atmospheric moisture and the temperature of the thermometer and the relationship between the formula for the condensation psychrometer and that of an ordinary psychrometer are analyzed. It is maintained that the assumption of a sufficiently large time interval during which the temperature of the wetted thermometer does not change does not hold for the condensation psychrometer. *Subject Heading:* 1. Condensation psychrometers.--*I.L.D.*

62

КАСИНОВИЧ, Г. С.

2  
Kasinovich, G. Observations on the growth of small vertical clouds.  
Formation of precipitation in clouds with small vertical currents. *Atmospheric Science*  
*Journal*, Ser. Geophys., No. 2112-19, Feb. 1956. 3 pp. in Russian. DDC 551.504  
of drops by condensation coagulation while falling through the clouds.

SOV/124-57-9-10744

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 129 (USSR)

AUTHOR: Kachurin, L. G.

TITLE: Determining the Structural Characteristics of Air Flows Under Natural Conditions (Opredeleniye strukturnykh kharakteristik vozdukhnykh potokov v yestestvennykh usloviyakh)

PERIODICAL: Tr. Leningr. gidrometeorol. in-ta, 1956, Nr 4, pp 180-184

ABSTRACT: A description is given of an instrument called a "turbulimetr" ("turbulence meter") designed and built in 1951 at the Leningrad Hydro-meteorological Institute, an instrument capable of almost inertia-free recording of the wind velocity and of its vertical component. Two platinum filaments 20  $\mu$  in diameter, but of differing-lengths, serve as the instrument's wind-velocity transducers. The two filaments constitute two adjoining arms of a Wheatstone bridge, the other two arms of which are manganin resistors. These two filaments are set up horizontally. The instrument's vertical-wind-component transducer consists of two identical filaments placed at an angle to each other in such a manner that they lie symmetrically with respect to the

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SOV/124-57-9-10744

Determining the Structural Characteristics of Air Flows Under Natural Conditions

axis of a wind vane on which the entire instrument is installed. The voltages on the bridge diagonals are fed into CRT's (cathode-ray tubes) through amplifiers having an amplification factor of  $4 \times 10^4$ ; the recording is done on a moving strip of photo-sensitive paper. From measurements that have been made it is estimated that the instrument's time constant is 0.01-0.02 sec. The author asserts that the electrical circuitry used in this instrument has a lower temperature coefficient than is true of the well-known instrument designed by A. M. Obukhov and S. M. Krechmer and that this feature renders the wind-velocity calibration curve somewhat closer to a straight line. One disadvantage of this particular design is the instability of the D-C amplifier. The author mentions also that in 1953 an inertia-free air-temperature gage was added to this "turbulence meter".

A. S. Monin

Card 2/2